

## REMARKS

Claims 1-9 are pending in this application. Claims 7-8 have been withdrawn from consideration by the Examiner for being drawn to a non-elected invention. By this Amendment, Claim 1 is amended and Claim 9 added. Support for the amended language and new claim can be found in the paragraph bridging pages 16-17 of the originally filed application as well as, for example, Figure 4 of the originally filed application. Therefore, Applicants respectfully submit that no new matter is presented herein.

### Claim Rejection – 35 U.S.C. §102

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,422,546 to Nemoto et al. (hereinafter “Nemoto ‘546”). Applicants respectfully traverse the rejection.

Claim 1 recites an electromagnetic actuator including, among other features, coupling means having a connecting bolt integral with the movable member, and an adjustment nut mounted at a lower end portion of the connecting bolt for advancing and retreating movements relative to the connecting bolt through threaded engagement therebetween, wherein adjustment of a threaded position of the adjustment nut on the connecting bolt adjusts a position of the movable core relative to the fixed core. See Figure 4 of the application. Owing to the structural arrangement recited by Claim 1, the relative position of the movable core with respect to the fixed core, that is, the air gap between the cores, can be adjusted simply by adjusting the threaded position of the adjustment nut on the connecting bolt.

Applicants respectfully submit the Nemoto '546 fails to disclose or suggest such a feature.

Rather, as shown in Figures 1 and 4 of Nemoto '546, a spring (41) is used apparently to serve the adjustment of gap ( $\beta$ ) between the core portions (32a) and (38). Providing such a spring (41) undesirably increases the energy necessary for absorbing the movable core toward the fixed core during operation, which increases the overall costs associated with the actuator.

To qualify as prior art under 35 U.S.C. §102, a single reference must teach, i.e., identically describe, each feature of a rejected claim. As explained above, Nemoto '546 fails to disclose or suggest each and every feature of Claim 1.

In view of the above, Applicants respectfully submit Claim 1 is not anticipated by, nor rendered obvious in view of, Nemoto '546. Therefore, Applicants respectfully submit Claim 1 should be deemed allowable and the rejection withdrawn.

### **Claim Rejections – 35 U.S.C. §103**

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Nemoto '546 in view of U.S. Patent Number 6,641,120 to Nemoto (hereinafter "Nemoto '120"). Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Nemoto '546 in view of Nemoto '120 and further in view of JP 2003-49894 to Matsuoka et al. (hereinafter "Matsuoka '894"). Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Nemoto '546 in view of U.S. Patent Number 6,631,895 to Nemoto (hereinafter "Nemoto '895"). Applicants respectfully traverse the rejections.

Claims 2-4 each depend from Claim 1 and therefore include all of the features recited in Claim 1.

As discussed above, Nemoto '546 fails to teach or suggest each and every feature recited by Claim 1.

Nemoto '120 fails to teach or suggest coupling means having a connecting bolt integral with the movable member, and an adjustment nut mounted at a lower end portion of the connecting bolt for advancing and retreating movements relative to the connecting bolt through threaded engagement therebetween, wherein adjustment of a threaded position of the adjustment nut on the connecting bolt adjusts a position of the movable core relative to the fixed core. See Figures 1 and 4 of Nemoto '120.

Matsuoka '894 also fails to teach or suggest coupling means having a connecting bolt integral with the movable member, and an adjustment nut mounted at a lower end portion of the connecting bolt for advancing and retreating movements relative to the connecting bolt through threaded engagement therebetween, wherein adjustment of a threaded position of the adjustment nut on the connecting bolt adjusts a position of the movable core relative to the fixed core. See Figures 1 and 5 of Matsuoka '894.

Furthermore, Nemoto '895 fails to teach or suggest coupling means having a connecting bolt integral with the movable member, and an adjustment nut mounted at a lower end portion of the connecting bolt for advancing and retreating movements relative to the connecting bolt through threaded engagement therebetween, wherein adjustment of a threaded position of the adjustment nut on the connecting bolt adjusts a position of the movable core relative to the fixed core. See Figures 1 and 4 of Nemoto '895.

To establish *prima facie* obviousness of a rejected claim, each and every feature of the rejected claim must be taught or at least suggested by the applied art of record. See M.P.E.P. §2143.03. As explained above, each of Nemoto '546, Nemoto '120, Matsuoka '894, and Nemoto '895, either alone or in combination, fail to teach or suggest each and every feature recited by Claim 1. Therefore, Applicants respectfully submit the Office Action has not established a *prima facie* case of obviousness and that Claim 1 should be deemed allowable as the claim is not rendered obvious in view of Nemoto '546, Nemoto '120, Matsuoka '894, and Nemoto '895, either alone or in combination.

Claims 2-4 depend from Claim 1. It is respectfully submitted that these three (3) dependent claims be deemed allowable for at least the same reasons Claim 1 is allowable, as well as for the additional subject matter recited therein.

As such, Applicants respectfully request withdrawal of the rejections.

Claims 5-6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nemoto '546 in view of Nemoto '895. Applicants respectfully traverse the rejection.

Claim 5 recites an electromagnetic actuator including, among other features, a set spring provided in a compressed state between an outward flange formed at an end of a bearing member and a first yoke.

The Office Action *admits* Nemoto '546 fails to teach or suggest a tube-shaped bearing member disposed inside a coil assembly to slidably support a movable core, wherein a first yoke for holding the coil assembly in corporation with a bottom wall of a housing is continuously provided to the housing; wherein the bearing member is slidably fitted in the first yoke; wherein a supporting portion for supporting an outward flange formed at one end of the bearing member is provided on the bottom wall; and wherein a

set spring for biasing the outward flange toward the supporting portion is provided in a compressed state between the outward flange and the first yoke.

The Office Action applies Nemoto '895 for supposedly teaching the features admitted by the Office Action as being absent from Nemoto '546.

The Office Action notes Nemoto '895 teaches a tubular bearing member (36) having an outward flange (36a) formed at a lower end thereof. The outward flange (36a) of the bearing member (36) clearly supports a first yoke (32). See the paragraph bridging columns 3-4 and Figure 4 of Nemoto '895.

However, Applicants respectfully submit Nemoto '895 fails to teach or suggest a set spring being in a compressed state between the outward flange (36a) and the first yoke (32).

In Nemoto '546, a spring is disposed between a bottom surface of the bearing (36) fixed to the yoke (32) and the bolt head (40a).

As such, Applicants respectfully submit Nemoto '546 and '895 fail to teach or suggest each and every feature recited by Claim 5.

To establish *prima facie* obviousness of a rejected claim, each and every feature of the rejected claim must be taught or at least suggested by the applied art of record. See M.P.E.P. §2143.03. As explained above, Nemoto '546 and Nemoto '895, either alone or in combination, fail to teach or suggest each and every feature recited by Claim 5. Therefore, Applicants respectfully submit the Office Action has not established a *prima facie* case of obviousness and that Claim 5 should be deemed allowable as the claim is not rendered obvious in view of Nemoto '546 and Nemoto '895, either alone or in combination.

Claim 6 depends from Claim 5. It is respectfully submitted that this dependent claim be deemed allowable for at least the same reasons Claim 5 is allowable, as well as for the additional subject matter recited therein.

As such, Applicants respectfully request withdrawal of the rejection.

**Conclusion**

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 1-6 and 9, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account No. 01-2300, **referencing Attorney Docket Number 107348-00406.**

Respectfully submitted,  
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